One urban district's digital learning

When students are empowered by full access to technology, learning goals can be achieved.

lanning and implementing major innovations in large urban districts can be a daunting and overwhelming idea - particularly when it comes to technology - due to real and perceived obstacles. Added to this challenge is the reality of the worst budget crisis in California history. Yet, we felt we needed to act.

Almost everyone you talk to in education will tell you technology is a powerful tool and most are trying to figure out a way to incorporate technology into their districts. Yet at the same time there are some serious doubts concerning the effectiveness of technology in improving student achievement and the ability to provide technology to all students, and there are cynical predictions about the trouble kids will find with an open access policy.

We have been able to move forward and change that conversation by focusing on "outcomes" rather than "inputs," using resourcefulness in providing devices to students, and truly engaging and empowering students by allowing full access to high quality educational resources and technology.

The district's vision

Riverside Unified School District has a population of approximately 44,000 students. Our student population is culturally and linguistically diverse, and some of our schools struggle with high levels of transiency. Approximately 63 percent of our students are socioeconomically disadvantaged.

In RUSD we began our digital learning revolution by developing a 2020 (20/20) vision of technology and learning. We came to the realization that the key outcomes we wanted to achieve focused on individual learning at the pace of the student, with the variable being time rather than learning. By that we mean that if a student takes three weeks to master a particular concept

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or course, he or she should be able to move on to the next one. On the other hand, if a student needs more time than our regularly scheduled classes provide, he or she should be allowed to take more time without being penalized.

In addition to this concept, we realized that our current systems and approaches are not all conducive to these goals and we began to again look at who our customers are (students and parents) and what our student outcomes have been. We realized that we needed to begin acting now to move closer to what our outcomes could be and should be. As a result of this 2020 vision, we began to examine what we could do now to use technology to provide 24/7 access to high quality teaching and learning opportunities for all our students.

In addition, we were given the charge by our district leadership to provide effective and efficient solutions – effective in the sense that they improve learning, and efficient in that they cost less money. Just as important was the encouragement to provide leadership and not management, results rather than compliance. It was with these "eyes" that we began work that has resulted in a true digital learning revolution.

By August 2011 (just about two years after starting the 2020 conversation), RUSD provided more than 10,000 different devices for student use at home and school and empowered another 20,000 students to use their own technology devices in our system as learning tools. Recognizing the magnitude of the change, we count on our students, parents and staff to help us define our vision for the future.

The one constant for our participating kids and classes is the use of technology to empower student learning 24/7. Although the devices range from Android slates, iPods, Netbooks and iPads to laptops, our approach in fostering the innovation is the same.

- 1. Identify specific instructional goals and target populations.
- 2. Identify funding possibilities (grants, public/private collaborative, vendor-provided materials and resources, categorical funding resources).
- Survey parents and students to identify what they have or would be willing to pur-

chase, and use that technology to expand what we can do for those who don't have access

- 4. Identify the digital device that will be checked out to students (for that particular school or program).
- 5. Provide student and parent orientations.
 - 6. Empower students by allowing them

with them wherever they go. This project also focuses on virtual field trips via videoconferencing.

■ Houghton Mifflin Harcourt FUSE Algebra 1 Pilot at Earhart Middle School:

This project provides iPads to two Algebra 1 classes as well as access to the HMH FUSE Apple App. In addition, eight other



complete access to devices provided, but at the same time, expressing and expecting high expectations for student learning.

Some examples of the many actions we are taking in Riverside:

■ California Emerging Technology Fund (CETF) and the School to Home Project at Central Middle School:

This project provides Netbooks to all students at Central Middle School that are checked out and used at school and at home. All textbooks are accessible to the students on the Netbooks. The project provided training for parents, students and teachers, and also provides Internet connectivity for families who don't have that access.

■ Target Grant at Franklin and Washington Elementary Schools:

This project provides iPod Touches to students in grades 3-6 at two schools. The focus is on developing literacy and extending the educational day; students take devices classes were provided with the same resources in traditional classrooms.

■ The Learning on the Go pilot with the Federal Communications Commission and Verizon at Central, Chemawa, Educational Options Center and University Heights Middle School:

The FCC and Verizon have provided \$2.4 million in broadband access and Netbooks to expand open access at five RUSD middle schools. This project began in August of 2011.

■ Enhancing Education through Technology Digital Textbook and Student Digital Dashboard Project at Ramona High School:

This project provides a seven-inch Android digital device to all 9th-12th grade students at Ramona. The device replaces traditional textbooks and will also provide a student-centered data dashboard. Four hundred devices were piloted in the spring

of 2010. The remainder were deployed in August 2011.

■ Digital Textbook Initiative Implementation:

RUSD continues to be the leader in California's move toward digital textbooks for all. We began the process in 2009-10 and continue to expand their use. By the opening of the 2011-12 school year, all grades 7-12 campuses will have access to – or will be implementing – digital textbooks across their campuses.

■ Grassroots development of open access within the district:

In addition to the official pilots, grants and collaboration going on in the district, there are literally hundreds of smaller grassroots efforts including providing open access to special education, English learner and other traditionally underserved populations. Schools without categorical funding are embracing open access by leveraging the resources available to their communities.

Open access vs. lock and block

As we looked at our intended outcomes (providing access to technology and high quality online resources that allows for extended learning opportunities and student-paced education), we recognized several problems. Even in healthier budgetary times we were unable to provide these resources to our students and knew that we certainly could not do it using the same systems in the worst budgetary climate ever.

But as we examined our existing policies, we realized that we really had two problems: a digital divide, with a part of our population having little or no access to technology, and other students who had to "power down" to come to school. We soon recognized the foolishness of confiscating student technology (everything from iPods to Smartphones and beyond) while at the same time agonizing over how we could provide that very technology.

We implemented a philosophy we call "open access," which has two main components. The first is to allow students to bring

their devices into our system for use as an educational tool. The second is taking the remaining resources to provide for those who do not have technology or Internet access.

Unfortunately, the attitude of "lock and block," where access to technology is concerned, is very entrenched in K-12 education. The lack of research-based evidence in student growth using technology is understandable because in most cases, students are not using the technology on a regular basis or are using technology that has so many restrictions that it is of no value to them.

We realized right away that students who had their own technology used it 24/7 and personalized it so it was both a toy and a tool. We needed to provide that same access to students in order to maximize the engagement of students and take advantage of the limitless opportunities of online teaching and learning.

Online learning management

Our outcome was to provide access to technology and high quality online resources that allowed student-paced education. We soon realized that we really did not care what type of device was used or who provided it as long as students/parents could get to our online resources. We use an online learning management system called Haiku, and are working with Google to provide a place on the Internet where all students and parents can access teaching and learning resources.

We also understood that we could not use the existing technology management and support systems in this new world of open access. Students with their own technology were providing their own technical support, and by simply changing some basic policies (giving students the ability to fix and personalize district-owned devices), we were able to drop the loss/theft rate to less than 1 percent on district-owned devices checked out to students, as well as have students provide most if not all technical support on these devices.

This has also allowed us to purchase many different devices, ranging from an Android-based seven-inch interactive (touch and pen sensitive) device to, iPods, iPads, Netbooks and laptops ranging in price from

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\$165 to \$600, as opposed to our previously existing district standard tablet/PC costing \$1,600 apiece.

Leadership vs. compliance

In our district (as in others), the existing policies and procedures around the use of and access to technology were driven by technology and business considerations rather than our desired instructional outcomes. Policies were set up and enforced to prevent the loss of federal funding (the Child Internet Protection Act and the Federal Communications Commission eRate funding based on filtering).

However, as often happens in education, the policy became more important than the intent of the policy. The intent of both these acts is to keep our students safe while on the Internet, which is something we all agree on, but we soon realized that simply filtering Internet content or limiting access to technology was not effective, as our students are increasingly carrying their own unfiltered technology or are using fairly unsophisticated ways of bypassing our filters.

As a result, we focus on responsible-use training for students and parents, who attend some form of parent/student orientation using the FCC's online responsible use resources (www.onguardonline.gov). While we still provide minimal filtering, we are putting our efforts into educating our parents and students on how to be responsible digital citizens.

In addition to these policies we had to update our technology acceptable use agreement for both students and teachers (http://rusdit.ning.com/forum/topics/students-and-teacher), but always with the attitude of understanding the educational intent of the policy rather than a strict compliance to policies that have become outdated or made no sense in the first place. It is crucial that our educational outcomes drive these conversations and also critical that we educate our federal, state and local agencies in terms of what is needed to provide these outcomes.

Equity (meaning equal access, not identical access)

RUSD is charged (just like you are) with providing a free public education to stu-

dents. And we take that charge seriously. We realize that "intent" of equity is providing equal access to resources. RUSD is a large urban district with a large population that in the past has not been able to afford to purchase technology for all our students or classrooms. We've learned that by leveraging open access, we are at the very least being better stewards of the resources we have by providing them to those without resources.

We have also learned, however, that if parents perceive the educational value of these devices they will buy them for their students regardless of socioeconomic status. Still, the continued drop in price and rise in functionality of these digital devices (for instance, we are buying the Coby Android devices for \$165) makes it even more feasible to provide them to every student who cannot afford **Continued on page 36**



One urban district's digital learning revolution

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one. RUSD also believes that we can bridge this gap in other ways using existing systems and funding in a more effective and efficient way. The adoption and implementation of digital textbooks is just one example. We currently pay between \$80 and \$120 for one standard textbook, and at the secondary level we are providing students with four or five textbooks, depending on their class load. If

we provide (as we are doing at Ramona High School) a digital device capable of holding all student textbooks at a cost of \$165, we would be saving money as well as providing every student access to the Internet and a wealth of other educational resources.

Making the fundamental shift

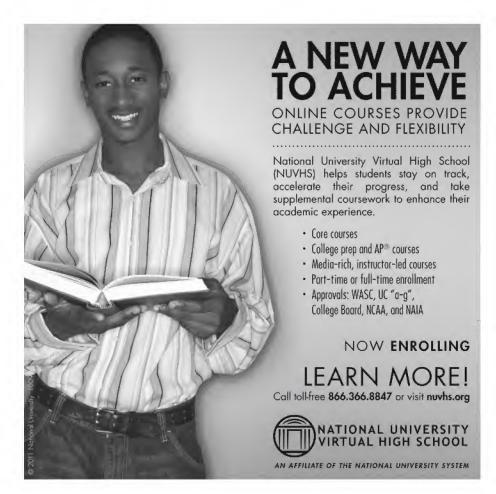
You can begin this process immediately in your school or district, but understand

that what we are talking about is not an "implementation;" it is a fundamental shift in philosophy. So with that in mind, we have listed some basic steps that will help you to empower your students as well.

- 1. Let instructional goals and instructional leaders drive the bus. Too often technology departments and or business departments are defining instructional goals based on what we cannot do rather than what we can do.
- 2. Survey your students and parents to find out what level of technology and Internet access they have and what they would be willing to provide to enhance their students' education.
- 3. Define what educational resources are available online and in what format, as that will help you identify the "best" device to be used.
- 4. Identify volunteer populations and begin implementation with those volunteers
- 5. Never forget that all devices, access and resources must be student-centered and empower students.
- 6. Start now! We can't keep talking about preparing students for the 21st century when we are more than a decade into it.

Moving beyond the system's restrictions

We fully understand that people inside and outside of your district will be saying that you can't do what you are trying to do, but our job as educators is to move from "can't" to "how." Fortunately for us there are others doing the things we have discussed in this article. Many of them are posted on our NING at http://rusdit.ning.com. Feel free to use these resources to help you move beyond our system's restrictions. Our students are counting on us!



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